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PATENT

E/
B2
end

10 sending to the sender from the server through the internet a copy of the message and the information received by the server from the agent.

E/

85. A method as set forth in claim 84 wherein the indication received by the server through the internet from the agent includes an identification of the agent and any transfer agent through whom the message has passed between the server and the agent.

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86. A method as set forth in claim 84 wherein the server identifies any attachment to the message and wherein the identity of the attachment received by the server through the internet from the agent and wherein the server sends to the sender through the internet a copy of the attachment received from the agent.

87. A method as set forth in claim 84 wherein a digital fingerprint of the message is provided at the server by a plurality of digits in a unique sequence and is sent by the server to the sender.

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88. A method as set forth in claim 84 wherein
the server creates a message digest of the message and encrypts the message digest and sends
the encrypted message digest to the sender through the internet with the message, the identification
and e-mail address of the server and the identity of the sender.

E1
X
89. A method as set forth in claim 84 wherein
the message passes from the server to the agent through at least one mail transfer agent and
wherein
the agent includes, in the information transmitted to the server, the identity and address of
5 the at least one mail transfer agent and wherein
the server includes in the information transmitted to the sender the identity of the at least one
mail transfer agent received by the server from the agent.

E1
SUB
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90. A method of transmitting a message through the internet from a sender to a recipient
through a server displaced from the recipient, including the steps at the server of:
receiving the message at the server from the sender,
transmitting from the server through the internet to an agent the message and the identity and
5 internet address of the server and an indication representing the identity of the sender,
receiving at the server from the agent a handshaking and delivery history of the message from
the server to the agent, and

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E1
B
and
10 transmitting from the server to the sender through the internet the message, a digital signature, including a digital fingerprint, of the message and the handshaking and delivery history of the message received from the agent.

AI
5 91. A method as set forth in claim 90 wherein
the server retains a copy of the digital signature of the message and the handshaking and delivery history of the message, but not a copy of the message unless requested to do so by the sender, after the server transmits to the sender through the internet the message, the digital signature of the message and the handshaking and delivery history of the message.

92. A method as set forth in claim 90 wherein
the server retains a copy, except for the message, of the information received by the server from the agent and sent to the sender and wherein
when the sender wishes to authenticate that the message was sent by the server to the agent,
5 the server matches the information, except for the message, sent by the server to the sender relating to the message with the information retained by the server relating to the message.

E1
93. A method as set forth in claim 90 wherein
the message includes an attachment and wherein
the server receives the attachment from the sender and wherein

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5 the server transmits the attachment to the agent at the same time that the sender transmits the message to the agent and wherein

the server receives from the agent the attachment at the same time that it receives the message and the handshaking and delivery history of the message from the agent and wherein

10 the server transmits the attachment and a digital signature, including a digital fingerprint, of the attachment to the sender at the same time that it transmits the digital signature of the message to the sender.

94. A method as set forth in claim 90 wherein

the message is transmitted from the sender to the agent in an individual one of a variety of recognized header formats and wherein

5 the server receives from the agent the digital signature of the message and the handshaking and delivery history of the message with the header formed in the individual one of the variety of recognized header formats.

95. A method as set forth in claim 90 wherein

the server requests a delivery status notification from the agent relating to the message when it transmits the message to the agent and wherein

5 the server receives the delivery status notification from the agent when it receives the digital signature of the message from the agent.

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96. A method as set forth in claim 90, including the step at the agent of:
indicating the delivery status of the message from the server in the transmittal from the agent
to the server through the internet.

E1 sub 87
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97. A method as set forth in claim 93, including the steps at the sender of:
receiving from the server through the internet, at the same time as the receipt of a copy of the
message to the agent from the server, a copy of any attachment to the message and a digital
signature, including a digital fingerprint, of the attachment, and
providing for a transmittal from the agent to the server through the internet of the digital
signature, including the digital fingerprint, of the attachment at the same time as the transmittal of
the message from the agent to the server.

5
98. In a method of transmitting a message through the internet from a sender to a recipient
through a server displaced from the recipient, the steps at the server of:
receiving the message at the server from the sender,
generating a hash constituting a synopsis of the message in coded form,
encrypting the hash with a particular encryption code to generate a digital fingerprint of the
message, and
transmitting the message and the digital fingerprint of the message through the internet to the
sender.

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99. In a method as set forth in claim 98, the steps at the server of:

10 generating, for any attachment to the message, a hash constituting a synopsis of the attachment in coded form,

encrypting the hash with a particular encryption code to generate a digital fingerprint of the attachment, and

15 transmitting the attachment and the digital fingerprint of the attachment to the sender through the internet at the same time that the message and the digital fingerprint of the message are transmitted from the server to the sender through the internet.

100. In a method as set forth in claim 98, the steps at the server of:

transmitting to an agent for the recipient through the internet the identity of the sender and the identity and internet address of the server at the same time that the server transports to the agent the message through the internet; and

5 receiving from the agent through the internet, the name of the sender, the name and internet address of the server and the identity and internet address of the agent.

101. In a method as set forth in claim 99, the steps at the server of:

transmitting to an agent for the recipient through the internet the identity of the sender and the identity and internet address of the server at the same time that the server transports to the agent the message through the internet;

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5 receiving from the agent through the internet the name of the sender, the name and internet address of the server and the identity and internet address of the agent; and

receiving from the agent through the internet the digital fingerprint of the attachment at the same time that the server receives the digital fingerprint of the message through the internet.

102. In a method as set forth in claim 100, the steps at the server of:

storing at the server the digital fingerprint of the message, the name of the sender, the identity and internet address of the server and the identity and internet address of the agent, and

transmitting to the sender for storage by the sender the digital fingerprint of the message, the
5 name of the sender, the identity and internet address of the server and the identity and internet address of the agent.

103. In a method as set forth in claim 101, the steps of:

storing at the server a digital fingerprint of the message, the name of the sender, the identity and internet address of the server and the identity and internet address of the agent,

transmitting at the server to the sender for storage by the sender a digital fingerprint of the
5 message, the name of the sender, the identity and internet address of the server and the identity and internet address of the agent,

storing at the server a digital fingerprint of the attachment, and

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transmitting at the server through the internet to the sender, for storage by the sender, the
digital fingerprint of the attachment, as received by the server from the agent, at the same time that
10 the server transmits to the sender through the internet the digital fingerprint of the message and the
identity of the sender and the identity and e-mail address of the server and the identity and internet
address of the agent, all as received by the server from the agent.

104. In a method as set forth in claim 102, the step of:

sending at the server to the sender through the internet the message received by the server
from the sender with an appendage of the digital fingerprint of the message for storage by the sender.

105. In a method as set forth in claim 103, the step of:

sending at the server to the sender through the internet the message received by the server
from the sender with an appendage of the digital fingerprint of the message for storage by the sender.

106. In a method of transmitting a message through the internet from a sender to an agent
for the recipient through a server displaced from the agent, the steps at the server of:

receiving the message at the server from the sender,

generating a hash constituting a synopsis of the message of the message in encoded form,

5 encrypting the hash with a particular encryption code to generate a digital fingerprint of the
message,

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transmitting the message and the identity of the sender and the identity and internet address
of the server through the internet from the server to the agent,

receiving at the server through the internet any transmission through the internet from the
agent concerning the message from the sender, and

determining the transmission received by the server from the agent, or from the lack of any
reception by the server through the internet from the mail transport authority, the delivery status of
the transmission by the server to the agent and the delivery status of any delivery of the message by
the agent to the recipient.

107. In a method as set forth in claim 106, the steps at the server of:

periodically examining the delivery status of the message transmitted to the agent and the
delivery status of any delivery of the message by the agent to the recipient, and

transmitting the message and the digital fingerprint of the message and the identity of the
sender and the identity and internet address of the server through the internet to the sender with an
indication of the delivery of the message to the agent when the server determines from the periodic
examination that the message has been delivered to the said transport agent.

108. A method of transmitting a message through the internet from a sender to an agent for
a recipient through a server displaced from the agent, including the steps at the server of:

receiving the message at the server,

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providing a digital fingerprint of the message,

5 transmitting through the internet to an agent of the recipient the message and the identity of
the sender and the identity and the internet address of the server,

receiving the identity and internet address of the agent and the identity of the sender and the
identity and internet address of the server, and

providing to the sender the information received by the server from the agent and the digital
10 fingerprint of the message.

109. A method as set forth in claim 108, including the steps at the server of:

providing to the sender the message at the same time as the provision of the digital fingerprint
of the message to the sender, and

retaining the information provided to the sender but discarding the message provided to the
5 sender.

110. A method as set forth in claim 108, including the steps at the server of:

providing an indication of the date and time of the reception of the identity and internet
address of the agent and the identity of the sender and the identity and the internet address of the
server from the agent, and

5 providing to the sender the indication of the date and time of the reception of the digital
fingerprint from the agent.

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111. A method as set forth in claim 108, including the steps at the server of:

receiving from the sender a copy of the message provided by the server and a copy of the digital fingerprint of the message and the identity and internet address of the agent and the identity
10 of the sender and the identity and internet address of the server, and

comparing the digital fingerprint of the message and the identity and internet address of the agent and the identity of the sender and the identity and internet address of the server, all as received from the sender, and the identity and internet address of the agent and the identity of the sender and the identity and internet address of the recipient, all as provided by the server, and the digital
15 fingerprint of the message at the server, and

authenticating the message received from the sender on the basis of the comparison provided
at the server.

112. A method as set forth in claim 108, including the steps at the server of:

forming at the server the digital fingerprint of the message by providing a hash of the message and then

encrypting the hash of the message.

113. A method as set forth in claim 108, including the steps at the server of:

providing a digital fingerprint of an attachment to the message,

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transmitting to the agent the attachment at the same time as the transmittal of the message,
and

5 transmitting to the sender the digital fingerprint of the attachment at the same time as the
transmission of the digital fingerprint of the message.

114. A method as set forth in claim 112, including the steps at the server of:

providing an indication of the date and time of the reception of the message from the agent,

and

providing to the sender the indication of the date and time of providing to the server the
5 digital fingerprint of the message from the agent at the time of providing to the sender the digital
fingerprint of the message,

providing to the sender the message at the same time as the provision of the digital fingerprint
of the message to the sender, and

10 retaining the information provided to the sender but discarding the message provided to the
sender,

providing a digital fingerprint of an attachment to the message,

transmitting to the agent the attachment at the same time as the transmittal of the message,

transmitting to the sender the digital fingerprint of the attachment at the same time as the
transmission of the digital fingerprint of the message,

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15 receiving from the sender a copy of the message provided to the sender and a copy of the
digital fingerprint of the message and the identity and internet address of the agent and the identity
of the sender and the identity and internet address of the server,

20 comparing the digital fingerprint of the message and the identity and internet address of the
agent and the identity of the sender and the identity and internet address of the server, all as received
from the sender, and the digital fingerprint of the message and the identity and internet address of
the agent and the identity of the sender and the identity and internet address of the recipient, all as
provided by the server, and

authenticating the message received from the sender on the basis of the comparison provided
by the server.

115. In a method of transmitting a message through the internet from a sender to an agent
for a recipient through a server displaced from the recipient, the steps at the server of:

providing at the server a digital fingerprint of the message,

storing at the server the digital fingerprint of the message, and

5 transmitting to the sender the message and the digital fingerprint of the message for storage
by the sender.

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116. In a method as set forth in claim 115, the step at the server of:
discarding the message after the transmission of the message and the digital fingerprint of the
message to the sender

117. In a method as set forth in claim 116 the steps at the server of:
receiving from the sender copies of the message and the digital fingerprint of the message,
comparing the digital fingerprint of the message from the sender and the stored digital
fingerprint of the message, and
authenticating the message on the basis of the results of the comparison.

118. In a method as set forth in claim 115,
providing at the server, at the same time as the provision of the digital fingerprint of the
message at the server, the identity of the sender and the identity and internet address of the server
and the address and internet address of the mail transport agency, all as received by the server from
the agent,

storing at the server the information received by the server from the agent, and
transmitting to the sender the identity of the sender, the identity and internet address of the
server and the identity and internet address of the agent, all as received by the server from the agent,
at the same time as the transmission of the message and the digital fingerprint of the message to the
sender.

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119. In a method as set forth in claim 115, the steps at the server of:
storing at the server the digital fingerprint of the attachment of the message, and
transmitting to the sender, at the same time as the transmission of the message and the digital
fingerprint of the message, the attachment and the digital fingerprint of the attachment as received
15 by the server.

120. In a method as set forth in claim 119, the steps at the server of:
receiving from the sender copies of the message and the attachment and the digital
fingerprints of the message and the attachment, and
respectively comparing the digital fingerprints of the message and the attachment and the
5 stored digital fingerprints of the message and the attachment to authenticate the message and the
attachment on the basis of this comparison.

121. In a method as set forth in claim 119, the steps at the server of
storing at the server, at the same time as the provision of the digital fingerprints of the
message and the attachment at the server, the identity of the sender and the identity and internet
address of the server and the address and internet address of the agent, all as received by the server
5 from the agent,

transmitting to the sender the identity of the sender, the identity and internet address of the
server, the identity of the sender, and the identity and internet address of the agent, all as received

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by the server from the agent, at the same time as the transmission of the message and the attachment and the digital fingerprint of the message and the attachment to the sender.

122. A method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps of

providing the message from the sender at the server,

providing at the server a digital fingerprint of the message and the identity of the sender and the identity and internet address of the server,

transmitting to the agent the message and the identity of the sender and the identity and the internet address of the server,

providing at the agent an indication of the status of the reception at the agent of the transmittal from the server to the agent of the message and the identity of the sender and the identity and internet address of the server, and

transmitting to the server from the agent the identity and internet address of the agent and the status of the reception at the agent of the message and the identity of the sender and the identity and internet address of the server.

123. A method as set forth in claim 122, including the steps of:

providing at the server a digital fingerprint of an attachment to the message,

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transmitting the attachment to the agent at the same time as the transmittal of the message to the agent,

providing at the agent the status of the reception of the attachment at the same time as the provision at the agent of the status of the reception of the message, and

transmitting to the server from the agent the status of the reception of the attachment at the same time as the transmittal to the server from the agent of the status of the reception of the message.

124. A method as set forth in claim 122 wherein the digital fingerprint of the message includes a digital digest of the message and an encryption of the digital digest.

125. A method as set forth in claim 122 wherein the agent includes in the transmission to the server the date and time of the transmission by the agent to the server.

126. A method as set forth in claim 122 wherein the server transmits to the sender the message and the digital fingerprint of the message and the identity of the sender and the identity and internet address of the server and the identity and internet address of the agent and the status at the agent of the reception at the agent of the message.

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127. A method as set forth in claim 122 wherein
the delivery status of the message at the agent includes at least one of the following: (a)
DELIVERED, (b) RELAYED, (c) DELIVERED-AND-WAITING FOR DELIVERY STATUS
NOTIFICATION (DSN), (d) DELIVERED-TO-MAILBOX, and (e) FAILED, UNDELIVERABLE.

E1
128. A method as set forth in claim 122 wherein
the digital fingerprint of the message includes a digital digest of the message and an
encryption of the digital digest,

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the agent includes the date and time of the transmission by the agent to the server, and
the server transmits to the sender the message and the digital fingerprint of the message and
the identity of the sender and the identity and internet address of the server and the identity and
internet address of the agent and the status at the agent of the reception at the agent of the message
and the digital fingerprint of the message,

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the delivery status of the message at the agent includes at least one of the following: (a)
DELIVERED, (b) RELAYED, (c) DELIVERED-AND-WAITING FOR DELIVERY STATUS
NOTIFICATION (DSN), (d) DELIVERED-TO-MAILBOX, and (e) FAILED, UNDELIVERABLE.

129. A method as set forth in claim 128, including the steps of:
providing at the server a digital fingerprint of an attachment to the message,

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transmitting the attachment to the message to the agent at the same time as the transmittal of the message to the agent,

5 providing at the agent the status of the reception of the attachment at the same time as the provision at the agent of the status of the reception of the message, and

transmitting to the server from the agent the status of the reception of the attachment at the same time as the transmittal to the server from the agent of the status of the reception of the message.

130. A method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps at the server of:

providing at the server a digital fingerprint of the message and the identity of the sender and the identity and internet address of the server,

5 transmitting to the agent the message and the identity of the sender and the identity and internet address of the server,

receiving from the agent the identity of the sender and the identity and internet address of the server and the identity and internet address of the agent and an indication of the status of the reception of the message at the agent, and

10 transmitting to the sender the message and the information received by the server from the agent relating to the message.

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131. A method as set forth in claim 130, including the steps at the server of:
providing at the server a digital fingerprint of an attachment to the message,
transmitting to the agent the attachment at the same time that the message is transported to
the agent,

5 receiving from the agent the status of the reception at the agent of the attachment at the same
time that the server receives from the agent the status of the reception at the agent of the message,
and

A1
10 transmitting to the sender the attachment and the information received by the server from the
agent relating to the attachment at the same time that the server transmits to the sender the message
and the information received by the server from the agent relating to the message.

E1
132. A method as set forth in claim 130 wherein
the delivery status of the message at the agent includes at least one of the following: (a)
DELIVERED, (b) RELAYED, (c) DELIVERED-AND-WAITING FOR DELIVERY STATUS
NOTIFICATION (DSN), (d) DELIVERED-TO-MAILBOX, and (e) FAILED, UNDELIVERABLE.

133. A method as set forth in claim 130 wherein
the server receives from the agent the date and time of the transmission by the agent to the
server of the status of the reception of the message at the agent and wherein

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EI the server transmits to the sender the date and time of the transmission by the agent of the
status of the reception by the agent of the message at the same time that the server transmits to the
sender the status of the reception by the agent of the message.

EI 134. A method as set forth in claim 133 wherein
the server also transmits to the sender the date and time of the transmission to the sender of
the status of the reception by the agent of the message.

135. A method as set forth in claim 134 wherein
the server does not store the message after it transmits the message to the sender.

EI 136. A method as set forth in claim 134 wherein
the server transmits to the sender the identity of the sender and the identity and internet
address of the server at the same time that it transmits the message and the digital fingerprint of the
message to the sender and wherein

5 the server stores the identity of the sender and the identity and the internet address of the
server and the digital fingerprint of the message and wherein

the server compares the stored identity of the sender and the identity and the internet address
of the server, all as stored by the server, and the identity of the sender and the identity and the

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internet address of the server, all as received by the sender, to authenticate the message transmitted
10 from the server to the sender.

137. A method as set forth in claim 134 wherein

the server transmits to the sender the identity and internet address of the agent and the status
of the reception of the message, all as received by the server from the agent, and the digital
fingerprint of the message and wherein

5 the server stores the identity and internet address of the agent and the status of the reception
of the message received by the agent, all as received by the server from the agent and the digital
fingerprint of the message, and wherein

10 the server compares the stored identity and internet address of the agent and the status of the
reception of the message and the digital fingerprint of the message with the identity and internet
address of the agent and the status of the reception of the message and the digital fingerprint of the
message all as received by the sender from the server, to authenticate the message transmitted from
the server to the sender.

138. A method as set forth in claim 136 wherein

the server does not store the message after it transmits the message to the sender and wherein

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the server transmits to the sender the identity and internet address of the agent and the status
of the reception of the message received by the agent, all as received by the server from the agent,
5 and the digital fingerprint of the message, and wherein

the server stores the identity and internet address of the agent and the status of the reception
of the message and the digital fingerprint of the message received by the agent, all as received by
the server from the agent, and the digital fingerprint of the message and wherein

the server compares the stored identity and internet address of the agent and the status of the
10 reception of the message and the digital fingerprint of the message with the identity and internet
address of the agent and the status of the reception of the message and the digital fingerprint of the
message, all as received by the sender from the server, to authenticate the message transmitted from
the sender to the server.

139. A method of authenticating a message transmitted through the internet from a sender
to a recipient through a server displaced from the recipient, including the steps at the server of:

transmitting to the sender the message and a digital fingerprint of the message, and a status
of the reception of the message by an agent for the recipient,

5 storing the digital fingerprint of the message at the server and the status of the reception of
the message by the agent,

receiving from the sender the digital fingerprint of the message and the status of the reception
of the message by the agent, and

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10 comparing the stored digital fingerprint of the message and the digital fingerprint of the message as received by the server from the sender to authenticate the message transmitted from the server to the sender.

140. A method as set forth in claim 139 wherein

the server stores the information transmitted by the server relating to the status of the reception of the message and the digital fingerprint of the message but does not store the message and wherein

the server compares the information stored by the server, and the information provided by the sender, relating to the status of the reception by the agent of the message, and the digital fingerprint of the message, to authenticate the message transmitted by the server to the sender.

141. A method as set forth in claim 139 wherein

the server transmits to the sender the identity of the sender and the identity and internet address of the server, all as transmitted by the agent to the server and wherein

the server stores the identity of the sender and the identity and internet address of the server, all as transmitted by the agent to the server and wherein

the server compares the information stored by the server, and the information provided by the sender, relating to the identity of the sender and the identity and information address of the server to authenticate the message transmitted by the server to the sender.

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142. A method of authenticating a message transmitted through the internet from a sender
to an agent for a recipient through a server displaced from the agent, including the steps of:
transmitting to the sender the message and a digital fingerprint of the message and a status
of a reception by an agent for the recipient of the message,
storing the digital fingerprint of the message at the server, and
15 comparing the stored digital fingerprint of the message and the digital fingerprint of the
message transmitted to the sender to authenticate the message transmitted from the server to the
sender.

143. The method as set forth in claim 142 wherein
the server does not store the message after it transmits the message to the sender.

144. A method as set forth in claim 142 wherein
the server transmits to the sender the identity of the sender and the identity and internet
address of the server at the same time that it transmits the message and the digital fingerprint of the
message to the sender and wherein
5 the server stores the identity of the sender and the identity and the internet address of the
server at the same time that it transmits the message and the digital fingerprint of the message to the
sender and wherein

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the server receives from the sender the identity of the sender and the identity and internet address of the server and wherein

10 the server compares the identity of the sender and the identity and the internet address of the server, all as received by the server from the sender, with the stored identity of the sender and the stored internet address of the server to authenticate the message transmitted from the server to the sender.

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E1
145. A method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps at the server of,

receiving the message from the sender,

transmitting to the agent the message and a fictitious return address identifying the message,

5 the sender and the recipient,

receiving from the agent the fictitious return address identifying the message, the sender and the recipient, and

identifying the message transmitted from the server to the agent and received by the server from the agent and identifying the message, the sender and the recipient.

146. A method as set forth in claim 145 wherein

the server transmits to the sender the fictitious return address received by the server from the agent and identifying the message, the sender and the recipient for return by the sender and wherein

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the server stores the fictitious return address received by the server from the agent and
5 identifying the message, the sender and the recipient.

147. A method as set forth in claim 146 wherein
the server transmits the message to the sender at the time that it transmits to the sender the
fictitious return address received by the server from the agent and identifying the message, the sender
and the recipient and wherein

the server does not retain the message after it transmits the message to the sender.

148. A method as set forth in claim 145 wherein
the recipient is one of a plurality of recipients receiving the message from the server and
wherein

the fictitious return address identifies the recipient from among the recipients in the group.

149. A method as set forth in claim 145 wherein

the message has an attachment and wherein

the fictitious return address also identifies the attachment to the message.

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150. A method as set forth in claim 146 wherein
the server transmits the message to the sender at the time that it transmits to the sender the
fictitious return address received by the server from the agent and identifying the message, the sender
and the recipient and wherein
5 the server does not retain the message after it transmits the message to the sender and wherein
the recipient is one of a plurality of recipients receiving the message from the server and
wherein
the fictitious return address identifies the recipient from among the recipients in the group
and wherein
10 the message has an attachment and wherein
the fictitious return address also identifies the attachment to the message.

151. In a method of identifying a sender's message transmitted from a server to an agent
for a recipient, the steps at the server of:

transmitting to the sender a fictitious return address received by the server from the agent and
identifying the message, the sender and the receiver,
5 storing in the server the fictitious return address transmitted by the server to the sender, and
receiving from the sender the fictitious return address transmitted by the server to the sender,
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comparing the fictitious return address provided by the sender and the fictitious return address stored in the server to authenticate the message provided by the sender.

152. In a method as set forth in claim 151 wherein,
the server transmits to the sender the message at the same time that it transmits the fictitious return address to the sender and wherein
the server does not retain the message after it transmits the message to the sender.

153. In a method as set forth in claim 151 wherein
the recipient is an individual one of a plurality of recipients receiving the message from the server and wherein

the fictitious return address identifies the individual one of the recipients in the group receiving the message.

154. In a method as set forth in claim 151 wherein
the message has an attachment and wherein
the fictitious return address identifies the attachment to the message.

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155. In a method as set forth in claim 152 wherein
the recipient is an individual one of a plurality of recipients receiving the message from the
server and wherein
the fictitious return address identifies the individual one of the recipients in the group
5 receiving the message and wherein
the message has an attachment and wherein
the fictitious return address identifies the attachment to the message.

156. A method of transmitting a message through the internet from a sender to an agent
for a recipient through a server displaced from the recipient, including the steps at the agent of:
receiving from the server through the internet the message and a digital signature, of the
message and the identity of the sender and the name and internet address of the server, and
5 providing for a transmittal to the server through the internet the digital signature of the
message and the identity of the sender and the name and internet address of the internet and the name
and internet address of the agent.

157. A method as set forth in claim 156, including the step at the agent of:
indicating in the transmittal from the agent to the internet whether or not the message has
been delivered by the agent to the recipient.

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158. A method as set forth in claim 156, including the step at the agent of:

indicating in the transmittal from the agent to the internet that the message and the digital signature, of the message and the identity of the sender and the name and internet address of the server have been sent by the agent to another agent for delivery to the recipient.

159. A method of providing a delivery at a first server of an electronic message from the first server to a destination address, including the steps of:

receiving at the first server an electronic message from a message sender for routing to the destination address,

transmitting the electronic message to a destination server for the destination address and transactions between the first server and the destination server receiving the message via a protocol selected from a group consisting of an SMTP and an ESMTP protocol,

recording at the first server the transactions between the first server and the destination server in the selected one of the protocols.

160. A method as set forth in claim 159, including the steps of:

including in the transaction between the first server and the destination server the identity of the sender, the identity and internet address of the first server and the identity and internet address of the destination server.

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161. A method as set forth in claim 159, including the steps of:
providing transactions between the first server and the sender,
including, in the transactions between the first server and the sender, a digital fingerprint of
the electronic message from the message sender.

162. A method as set forth in claim 159, including the step of:
recording, in the transactions between the first server and the destination server, the time for
the sending of the message from the first server to the destination server and the time for the receipt
of the message by the destination server.

163. A method as set forth in claim 160, including the steps of:
providing transactions between the first server and the sender, and
including, in the transactions between the first server and the sender, a digital fingerprint of
the electronic message from the sender, and

5 recording, in the transactions between the first server and the destination server, the time for
the sending of the message from the first server to the destination server and the time for the receipt
of the message by the destination server.

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164. A method as set forth in claim 159, including the step of:
including in the transaction between the first server and the destination server the status of
the delivery of the message from the destination server to the recipient.

165. A method as set forth in claim 159, including the step of:
receiving at the first server a delivery status notification relating to the status of the delivery
of the message to the destination server and the delivery of the message from the destination server
to the recipient.

166. In a method of verifying at a first server a delivery of an electronic message to a
destination server for a recipient, the steps of:

transmitting the electronic message from the first server to the destination server through a
transaction between the first server and the destination server via a protocol selected from the group
consisting of an SMTP protocol and an ESMTP protocol,

recording at the first server the transactions between the first server and the destination server
in the selected one of the protocols, and

transmitting to the sender the transactions between the first server and the destination server
in the selected one of the protocols.

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167. In a method as set forth in claim 166, the step of:
transmitting from the first server to the sender a copy of the message at the time of the
transaction of the first server and the destination server in the selected one of the protocols.

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168. In a method as set forth in claim 166, the step of:
destroying the message at the first server after the transmission of the copy of the message
in the selected one of the protocols by the first server to the destination server.

169. In a method as set forth in claim 166, the steps of:
recording at the first server a digital fingerprint of the message, and
transmitting the digital fingerprint of the message from the first server to the sender at the
time of the transmission of the selected one of the protocols from the first server to the sender.

170. In a method as set forth in claim 169, the steps of:
transmitting from the first server to the sender a copy of the message at the time of the
transaction of the first server and the destination server in the selected one of the protocols, and
destroying the message at the first server after the transmission of the copy of the message
S in the selected one of the protocols by the first server to the destination server.

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171. In a method as set forth in claim 170, the step of:

transmitting between the first server and the destination server the name of the sender, the name and address of the first server and the name and address of the destination server and the time of the receipt of the message by the first server.

172. In a method as set forth in claim 166, the step of:

receiving at the first server a delivery status notification indicating the status of the delivery of the message from the first server to the destination server and the time of the transmission of the delivery status notification by the destination server to the first server.

173. In a method of verifying at a first server a message received by the first server from a sender and transmitted by the first server to a destination server for a recipient, the steps of:

recording at the first server transactions between the first server and the destination server relating to the message from the sender, the transactions between the first server and the destination server being provided via a protocol selected from the group consisting of a SMTP protocol and an ESMTP protocol,

transmitting from the first server to the sender the message and the transactions between the first server and the destination server via the selected one of the SMTP protocol and the ESMTP protocol, and

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10 comparing at the first server the recorded transactions and the transactions previously transmitted from the first server to the sender and subsequently provided by the sender to the first server, thereby to authenticate the message transmitted by the first server to the sender when there is a correspondence in the comparison.

174. In a method as set forth in claim 173, the step of:

transmitting with the message from the first server to the sender a digital fingerprint of the message at the same time that the first server transmits to the sender the transactions between the first server and the destination server via the selected one of the SMTP protocol and the ESMTP protocol.

175. In a method as set forth in claim 170, the step of:

removing the message from the first server when the first server transmits to the sender the message and the transaction between the first server and the destination server via the selected one of the SMTP protocol and the ESMTP protocol.

176. In a method as set forth in claim 173, the steps of:

recording at the first server the indication of the name of the sender, the name and address of the first server and the name and address of the destination server at the time of the recording at

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the first server of the transactions between the first server and the destination server via the protocol
5 selected from the group consisting of the SMTP protocol and the ESMTP protocol, and

transmitting from the first server to the sender the name of the sender, the name and address
of the first server and the name and address of the destination server at the time of the transmission
from the first server to the destination server of the transaction between the first server and the
destination server via the protocol selected from the group consisting of the SMTP protocol and the
10 ESMTP protocol,

the comparison at the first server including a comparison of the name of the sender, the name
and address of the first server and the name and address of the destination server as received by the
first server from the sender and as recorded by the first server.

177. In a method as set forth in claim 175, the steps of

recording at the first server the digital fingerprint of the message and transactions between
the first server and the destination server relating to the message from the sender, the transactions
between the first server and the destination server being provided via a protocol selected from the
5 group consisting of an SMTP protocol and an ESMTP protocol,

transmitting from the first server to the sender the message and the digital fingerprint of the
message and the transactions between the first server and the destination server via the selected one
of the SMTP protocol and the ESMTP protocol,

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transmitting the message from the first server to the sender and a digital fingerprint of the
10 message at the same time that the first server transmits to the sender the transactions between the
first server and the destination server via the selected one of the SMTP protocol and the ESMT
protocol, and

comparing at the first server the recorded digital fingerprints and recorded transactions with
the digital fingerprint and the transactions previously transmitted from the first server to the sender
15 and subsequently provided by the sender to the first server, thereby to authenticate the message
transmitted by the first server to the sender when there is an correspondence in the comparison.

178. In a method as set forth in claim 173, the step of:

recording at the first server an indication of the identity of the sender, the identity and the
address of the first server and the identity and address of the destination server at the same time that
the transactions between the first server and the destination address are recorded at the first server,

5 transmitting from the first server to the sender the identity of the sender, the identity and
address of the first server and the identity and address of the destination server at the time that the
message and the transactions between the first server and the destination server are transmitted from
the first server to the sender, and

comparing at the first server the identity of the sender, the identity and address of the first
10 server and the identity and address of the destination server, all as transmitted to the sender and as
recorded in the first server, at the same time that the other comparisons are made, thereby to

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authenticate the message transmitted by the first server to the sender when there is a correspondence in the comparison.

179. A method of verifying delivery at a first server of an electronic message to a destination server for a recipient, including the steps of:

receiving at the first server an electronic message from a message sender for routing to the destination server,

5 establishing at the first server a communication with the destination server,

transmitting from the first server the electronic message to the destination server with a protocol transaction via a protocol selected from a group consisting of an SMTP protocol and an
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E-1
ESMTP protocol,

10 recording at the first server the protocol transactions between the first server and the destination server relating to the message,

transmitting from the first server to the sender the message and the protocol transactions between the first server and the destination server,

15 providing at the first server a comparison of at least a particular portion of the transactions in the selected one of the protocols as proof of delivery of the message by the first server to the destination server, the comparison being provided between the transaction protocol recorded at the first server and the transaction protocol received by the sender from the server.

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180. A method as set forth in claim 178 wherein
the at least particular portion of the transactions provided in the selected protocol to the
sender is thereafter provided by the sender to the first server, and

20 the at least particular portion provided in the selected protocol by the sender to the first server
is compared in the first server with the at least particular portion recorded in the selected protocol
at the first server to determine whether the message received by the sender is authentic.

181. A method as set forth in claim 178 wherein
a digital fingerprint is made of the message at the first server and wherein
the digital fingerprint is recorded at the first server with the protocol transactions and wherein
the digital fingerprint is transmitted from the first server to the sender with the message and
5 the protocol transactions between the first server and the destination server and wherein
the digital fingerprint is provided by the sender to the first server with the at least particular
portion of the transactions in the selected protocol.

182. A method as set forth in claim 180 wherein
the digital fingerprint and the at least particular portion of the transactions provided in the
selected protocol to the sender are thereafter provided by the sender to the first server and wherein
the digital fingerprint and the at least particular portion provided in the selected protocol by
5 the sender to the first server are compared in the first server with the digital fingerprint and the at

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least particular portion recorded in the selected protocol at the first server to determine whether the message received by the sender is authentic.

183. A method of verifying at a first server the delivery of an electronic message from the first server to a destination server for a destination address including the steps of:

receiving at the first server an electronic message from a message sender for routing to the destination server,

transmitting to the destination server for the destination address the electronic message and transactions between the first server and the destination server relating to the electronic message via a protocol selected from the group consisting of an SMTP protocol and an ESMTP protocol,

recording at the first server the transactions between the first server and the destination server via the protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol,

transmitting to the sender the transactions between the first server and the destination server in the selected one of the protocols, and

comparing at the first server the recorded transactions and the transactions previously transmitted from the first server to the sender and subsequently provided by the sender to the first server, thereby to authenticate the message transmitted by the first server to the sender when there is an identity in the comparison.